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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,913	12/29/2001	Motoki Kato	450100-4414.1	9795

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EXAMINER

AN, SHAWN S

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,913

Applicant(s)

KATO, MOTOKI

Examiner

Shawn S An

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

1. As per Applicant's instruction in Paper 9 as filed on 10/30/03, claims 18, 23, 26, and 27 have been amended.

Response to Reconsideration

2. Applicant's remarks filed on 10/30/03 have been fully considered but they are not persuasive. The Applicant presents arguments of which Gonzales et al's reference is applicable specifically to video compression algorithms intended to produce a fixed-bit-rate compressed data stream, and by contrast, the standardized relationship of the present invention is based on variable-bit-rate coding with a predetermined average bit rate. Furthermore, Applicant contends that the target bit rate in Gonzales has nothing to do with a standardized relationship based on a reference motion picture image sequence previously coded with a predetermined average bit rate.

However, after careful scrutiny of the Fukuda and Gonzales et al's references, the Examiner must respectfully disagree, and maintain the grounds of rejection for the reasons that follow.

In response, even though Gonzales et al's reference is applicable specifically to video compression algorithms intended to produce a fixed-bit-rate compressed data, Gonzales also teaches that this system can be used in a variable-bit-rate-coder ...(col. 8, lines 14-16). As per Applicant's contention discussed above, Fukuda discloses a standardized relationship based on a reference motion picture image sequence previously coded with a predetermined average value, instead of average bit rate. Gonzales et al's reference was added mainly to support teaching of standardized relationship based on a reference motion picture image sequence previously coded with a target (predetermined) average picture bit allocation (rate) (col. 11, lines 60-68; col. 12, lines 11-14).

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Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a signal coding apparatus/method, and a signal recording medium as taught by Fukuda to incorporate the teaching as above as taught by Gonzales et al so that the relationship is based on the reference motion picture image sequence previously coded by way of variable bit rate coding with a predetermined average bit rate as an efficient way to optimize bit rate allocation.

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 18-19, 22-24, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda (5,949,956) in view of Gonzales et al (5,617,145).

Regarding claims 18, 23, and 26-27, Fukuda discloses a signal coding apparatus/method, and a signal recording medium, comprising:

coding difficulty calculating means (101) for determining a coding difficulty for each unit time of an input signal;

means for obtaining a reference value of the allocation data amount (301 and 302) interrelated with the coding difficulty of the input signal for the each unit time based on a standardized relationship between coding difficulty and allocation data amount, wherein the standardized relationship is based on a reference motion picture image sequence previously coded by way of variable bit rate coding with a predetermined average value (Col. 6, lines 25-41);

means for modifying (104+) the reference value of the allocation data amount into an actual allocation data amount;

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coding means (107) for generating coded data by coding the input signal for the each unit time according to the actual allocation data amount; and transmitting the generated coded data (Col. 6, lines 1-3).

Fukuda does not specifically disclose that the relationship is based on a reference motion picture image sequence previously coded by way of variable bit rate coding with a predetermined average bit rate.

However, Gonzales et al teaches standardized relationship being based on a reference motion picture image sequence previously coded with a target (predetermined) average picture bit allocation (rate) for previous coded image sequences (col. 11, lines 60-68; col. 12, lines 11-14).

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a signal coding apparatus/method, and a signal recording medium as taught by Fukuda to incorporate the concept as taught by Gonzales et al so that the relationship is based on the reference motion picture image sequence previously coded by way of variable bit rate coding with a predetermined average bit rate as an efficient way to optimize bit rate allocation.

Regarding claims 19 and 24, Fukuda discloses means for modifying controlling the actual allocation data amount, so that a total of a bit amount generated when a signal of a time length which can be recorded on a recording medium is equal to or below a bit amount available in the recording medium for signal recording (Col. 6, lines 56-67 and Col. 7, lines 1-23).

Regarding claim 22, Fukuda discloses input signal being a moving picture image signal, and the coding difficulty (Fig. 2) is determined according to an image characteristic of the input image for each predetermined time and coding is carried out with an allocation data amount (102) reflecting human visual characteristic.

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5. Claims 20-21, 25, and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda and Gonzales et al as applied to claims 18, 23, and 27 above, respectively, and further in view of Chung et al (5,686,982).

Regarding claims 20-21, 25, and 28-29, the combination of Fukuda and Gonzales et al does not specifically disclose the input signal being subjected to a pre-filter processing.

However, Chung et al disclose well known pre-filter processing (Fig. 3, element 33), which includes a low pass filter processing (Col. 5, lines 6-11).

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a signal coding apparatus/method, and a signal recording medium as taught by Fukuda to incorporate the well known low pass filter processing as taught by Chung et al so that Fukuda's pre-filter processing includes the low pass filter when suppressing the actual allocation sign amount below the reference value in order to prevent coding deterioration.

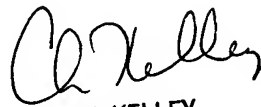
Conclusion


6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CAR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CAR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawn An whose telephone number (703) 305-0099 and schedule are Tuesday through Friday.


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600


SSA
SUPERVISORY PATENT EXAMINER

January 4, 2004